IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A separator for an electrochemical cell, comprising:

(A) a flexible perforate support,

(B) a porous first ceramic material which fills the perforations in the support and which

(i) has a pore structure ~~which is characterized by~~ having an average pore size, and

(ii) is suitable for receiving an ion-conducting electrolyte,

~~characterized in that~~ wherein

(C) ~~the~~ an electrolyte-contactable pore surface of the first porous ceramic material is covered with fine particles of a further material to extend the use life, the average size of the fine particles being in the range from 0.5 to 30% ~~and preferably in the range from 1 to 15%~~ of the average pore size of the ceramic material.

Claim 2 (Original): The separator of claim 1, wherein the material of the fine particles is identical to or different from the porous ceramic material.

Claim 3 (Original): The separator of claim 2, wherein the material of the fine particles is different from the porous ceramic material.

Claim 4 (Currently Amended): The separator of claim 2 ~~or 3~~, wherein the fine particles comprise SiO_2, Al_2O_3, ZrO_2 or SiC.

Claim 5 (Currently Amended): The separator of claim 2 ~~any of claims 2 to 4~~, wherein the fine particles comprise Li_2CO_3, Li_3N, $LiAlO_2$ or $Li_xAl_yTi_z(PO_4)_3$, ~~where~~ and wherein $1 \leq x \leq 2$, $0 \leq y \leq 1$ and $1 \leq z \leq 2$.

Claim 6 (Currently Amended): The separator of claim 1 ~~any preceding claim~~, comprising an electrolyte for ion conductance~~, preferably alkali and alkaline earth metal ion conductance and more preferably lithium ion conductance~~.

Claim 7 (Currently Amended): The separator of claim 1 ~~any preceding claim~~, wherein the fine particles are incorporated in the porous first ceramic material and are exposed on the pore surface.

Claim 8 (Currently Amended): The separator of claim 1 ~~any preceding claim~~, wherein the porous first ceramic material is coated with the fine particles.

Claim 9 (Currently Amended): The separator of claim 1, ~~any preceding claim~~, ~~characterized in that~~ wherein the ceramic material has an average pore size in the range from 50 nm to 5 μm.

Claim 10 (Currently Amended): The separator of claim 1 ~~any preceding claim~~, wherein the porous ceramic material comprising fine particles has a porosity in the range from 10% to 70% ~~and preferably in the range from 20% to 50%~~.

Claim 11 (Currently Amended): The separator of claim 1 ~~any preceding claim~~, wherein the ceramic material comprises an oxide of zirconium, silicon ~~and/~~or ~~preferably~~ aluminum.

Claim 12 (Currently Amended): The separator of claim 1 ~~any preceding claim~~, wherein the first ceramic material is produced ~~producible~~ by solidifying a slip which contains particles having a large average particle size which determine the pore structure of the ceramic material and also particles having a smaller average primary particle size which adhere the large particles together in the course of the solidification of the slip.

Claim 13 (Currently Amended): The separator of claim 1 ~~any preceding claim~~, wherein the perforate support comprises polymeric fibers, glass or ceramic.

Claim 14 (Currently Amended): The separator of claim 1 ~~any preceding claim~~, wherein the perforate support comprises fibers~~, preferably selected from fibers of polyamide, polyacrylonitrile, polyester and/or polyolefin, glass fibers or ceramic fibers~~.

Claim 15 (Currently Amended): The separator of claim 1 ~~any preceding claim~~, wherein the support comprises fibers and/or filaments from 1 to 150 µm ~~and preferably from 1 to 20 µm in diameter~~ and/or yarn from 3 to 150 µm ~~and preferably from 10 to 70 µm~~ in diameter.

Claim 16 (Currently Amended): The separator of claim 1 ~~any preceding claim~~, wherein the support is a nonwoven having a pore size from 5 to 500 µm ~~and preferably from 10 to 200 µm~~.

Claim 17 (Currently Amended): The separator of claim 1, wherein the separator ~~any preceding claim that~~ is stable under service conditions at not less than 100°C~~, preferably at not less than 150°C and most preferably at not less than 180°C~~.

Claim 18 (Currently Amended): The separator of claim 1, wherein the separator ranges ~~any preceding claim,~~ from 10 to 1 000 µm~~, preferably from 10 to 100 µm and most preferably from 10 to 50 µm~~ in thickness.

Claim 19 (Currently Amended): The separator of claim 1, wherein the separator ~~any preceding claim that~~ tolerates a bending radius down to 100 mm~~, preferably down to 20 mm and most preferably down to 1 mm~~.

Claim 20 (Currently Amended): A process for producing a separator for an electrochemical cell as claimed in claim 1 ~~any of claims 1 to 19~~, comprising ~~the following steps~~:

(a) applying a dispersion as a thin layer onto and into a woven and/or nonwoven, the dispersion comprising:

(a1) large ceramic particles whose average particle size provides a pore structure to the thin layer ~~that is characterized by~~ having an average pore diameter,

(a2) fine particles whose average particle size is in the range from 0.5 to 30% ~~and preferably in the range from 1 to 15%~~, of the average particle size of the ceramic material, and ~~also~~

(a3) optionally, ceramic particles having an average primary particle size which is substantially less than the average particle size of the ceramic particles as per (a1) and (a2)[[,]]; and

(b) solidifying the dispersion at a temperature from 100°C to 680°C to form a separator.

Claim 21 (Currently Amended): The process of claim 20, wherein the dispersion in step (a) further comprises a sol~~, preferably of the elements aluminum, zirconium and/or silicon~~.

Claim 22 (Currently Amended): A process for producing a separator for an electrochemical cell as claimed in claim 1 ~~any of claims 1 to 19~~, comprising ~~the following steps~~:

(i) providing a composite formed from a perforated support, ~~preferably a woven and/or nonwoven,~~ and also a porous ceramic material whose pore structure ~~is characterized by~~ having an average pore size[[,]];

(ii) treating the composite with a dispersion of fine particles having an average particle size in the range from 0.5 to 30% ~~and preferably in the range from 1 to 15%~~ of the average pore size in a dispersion medium so that the electrolyte-accessible pore surface of the composite is coated with the dispersion and the dispersion ~~preferably contains~~ comprises from 1 to 25% by weight~~, especially from 5 to 15% by weight of fine particles~~; and

(iii) drying the dispersion at a temperature in the range from 100°C to 680°C so that the coated pore surface is coated with the fine particles.

Claim 23 (Currently Amended): The process of claim 22, wherein the composite is a separator which is ~~obtainable~~ obtained by the process of claim 20 ~~or 21~~.

Claim 24 (Currently Amended): The process of claim 20 ~~any of claims 20 to 23~~, wherein the dispersion ~~contains~~ comprises one or more additional components selected from the group consisting of adhesion promoters, dispersing assistants, agents for setting the

viscosity, agents for setting the flow properties ~~or~~ and other customary assistants for producing dispersions.

Claim 25 (Currently Amended): The process of claim 20 ~~any of claims 20 to 24~~, wherein the dispersion medium contains water and the fine particles are hydrolysis-stable element oxide particles.

Claim 26 (Currently Amended): The process of claim 20 ~~any of claims 20 to 24~~, wherein the dispersion medium is an anhydrous organic solvent and the fine particles comprise hydrolysis-sensitive materials.

Claim 27 (Currently Amended): The process of claim 20 ~~any of claims 20 to 26~~, wherein the ceramic particles comprise a material selected from the group consisting of aluminum oxide, silicon oxide, ~~and~~ zirconium oxide ~~or~~ and mixtures thereof.

Claim 28 (Currently Amended): An electrochemical cell, ~~especially~~ a lithium battery, lithium ion battery or a lithium polymer battery, wherein the cell comprises a separator as claimed in claim 1 ~~any of claims 1 to 19~~.

Claim 29 (Canceled).